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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/945,062 | 08/31/2001 | Charles Chi Jia | 10004755-1 | 3849 |

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER

LEE, TOMMY D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2624

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/945,062

Applicant(s)

JIA, CHARLES CHI

Examiner

Thomas D. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 12-15 and 24 is/are rejected.
- 7) ☒ Claim(s) 4-11 and 16-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050517.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 12-15 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,342,950 (Tabata et al.).

Regarding claims 1-4 and 12, Tabata et al. disclose a method of processing a scanned image produced by scanning a halftone image formed of a plurality of image dots and having a halftone resolution and at least one halftone angle, the method comprising: detecting at least one halftone characteristic of the scanned image (image identification portion 1003 detects character and image portions (column 5, lines 22-34)); dividing the scanned image into a plurality of image sections based on the at least one halftone characteristic, each image section including a plurality of pixels and at least one scanned image dot formed within the plurality of pixels (blocks of pixels identified as either "resolution-oriented" or "tone-oriented" based on the halftone characteristic (Fig. 2)); and enhancing each of the image sections of the scanned image to create a plurality of enhanced image sections, including diffusing the at least one scanned image dot of each of the image sections (error diffusion circuit 1100a

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processes image blocks based on identification result (column 5, lines 35-47)). The method further comprises: producing an enhanced image with the plurality of enhanced image sections, wherein creating the enhanced image includes at least one of displaying and printing the enhanced image (printer 1006 provides output of processed image (column 5, lines 16-21)). Diffusing the at least one scanned image dot includes distributing a darkness density of the at least one scanned image dot to at least one adjacent pixel (performed by error diffusion circuit 1006 (column 5, line 50 – column 6, line 8)).

Claims 13-15 and 24 are system claims corresponding to above-rejected method claims 1-3 and 12, respectively. The components for performing the steps recited in the method claims are provided in Tabata et al., as set forth above.

Allowable Subject Matter

3. Claims 4-11 and 16-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: No prior art has been found to disclose or suggest detection of at least one halftone characteristic of the scanned image, including detecting at least one of the halftone resolution and the at least one halftone angle of the halftone image from the scanned image, as recited in dependent claims 4 and 16, or filtering the scanned image to create a filtered image having a second resolution less than a first resolution of the

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scanned image, as recited in dependent claims 5 and 17, prior to the dividing and enhancing steps recited in base claims 1 and 13, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Lee whose telephone number is (571) 272-7436. The examiner can normally be reached on Monday-Friday (7:30-5:00), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas D. Lee
Primary Examiner
Art Unit 2624

tdl
June 24, 2005